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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/581,603  | 02/27/2007  | Katsuyuki Wada       | 1035-641            | 5465             |
| 23117 7590 11/15/2010<br>NIXON & VANDERHYE, PC<br>901 NORTH GLEBE ROAD, 11TH FLOOR<br>ARLINGTON, VA 22203 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| ANDERSON, CATHARINE L   |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 3764  |             |                      |                     |                  |
| MAIL DATE   |             | DELIVERY MODE        |                     |                  |
| 11/15/2010  |             | PAPER                |                     |                  |

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The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/581,603  
Filing Date: February 27, 2007  
Appellant(s): WADA ET AL.

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Frank Presta  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 20 August 2010 appealing from the Office action mailed 29 January 2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1-9 are rejected.

Claims 10-14 are withdrawn.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

|           |                  |        |
|-----------|------------------|--------|
| 6,514,615 | SUN et al.       | 2-2003 |
| 6,222,091 | BEIHOFFER et al. | 4-2001 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (6,514,615) in view of Beihooffer et al. (6,222,091).

With respect to claims 1 and 4-5, Sun discloses all aspects of the claimed invention with the exception of the saline flow conductivity and the heat retention indicator. Sun discloses a water-absorbing agent comprising a crosslinked resin polymer that is surface treated, as disclosed in column 4, lines 37-52. The water-absorbing agent has a centrifuge retention capacity of less than 34 g/g, as disclosed in column 7, lines 50-54, and an absorbency of less than 30 g/g, as disclosed in column 7, lines 55-62.

Sun remains silent as to the heat retention indicator of the water-absorbing agent, but the temperature change on the surface of the water-absorbing resin is inherent to the water-absorbing resin. Since Sun discloses the identical water-

absorbing agent as the claimed invention, the water-absorbing agent of Sun will inherently exhibit the claimed heat retention indicators.

Additionally, Beihoffer teaches water-absorbing agents comprising resin polymers, the water-absorbing agents having a saline flow conductivity of  $15 \times 10^{-7}$   $\text{cm}^3\text{sec/g}$ , as disclosed in column 47, lines 27-28. This saline flow conductivity prevents the water-absorbing agent from forming a hydrogel during use, and provides for improved fluid handling, as disclosed in column 36, lines 24-51.

It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide the water-absorbing agent of Sun with a saline flow conductivity of  $15 \times 10^{-7}$   $\text{cm}^3\text{sec/g}$ , as taught by Beihoffer, to provide for improved fluid handling.

With respect to claims 2 and 6, Sun discloses the water-absorbing agent is particles having diameters from 300-600 micrometers, with 0% being less than 150 micrometers, as disclosed in column 5, lines 41-44.

With respect to claim 3, the water-absorbing agent is further provided with inorganic fine particles, as disclosed in column 8, lines 25-27.

With respect to claim 7, the water-absorbing agent further comprises a polyol, as disclosed in column 5, lines 18-24.

With respect to claims 8 and 9, the water-absorbing agent is mixed with hydrophilic fibers to form the absorbent core of an absorbent article, as disclosed in column 4, lines 1-11. Absorbent articles such as diapers and sanitary napkins are well-known to comprise a liquid-permeable topsheet and a liquid-impermeable backsheet. It would therefore have been obvious to one of ordinary skill in the art at the time of

invention to provide the absorbent article of Sun with a liquid-permeable topsheet to provide a cover layer to protect the wearer from the absorbent core, and a liquid-impermeable backsheet to prevent leakage from the absorbent article.

#### **(10) Response to Argument**

In response to the Appellant's argument that the heat retention of a diaper can be enhanced by improving a particular capability of the water-absorbing resin, it is noted that the present claims do not disclose any improvement to the claimed water-absorbing resin. The present claims merely disclose a water-absorbing agent that is surface-treated, but do not disclose the type of water-absorbing agent or the surface treatment. The present specification discloses, in the paragraph bridging pages 14 and 15, a suitable water-absorbing resin is partially neutralized polyacrylic acid formed from monomers of acrylic acid. Sun discloses in column 4, lines 38-52, a water-absorbing resin that is formed from monomers of acrylic acid and is partially neutralized. Therefore, Sun discloses the claimed water-absorbing resin.

The heat retention indicator 1, as described on pages 46-47 of the present specification, depends on the rate at which the resin cools, which is a result of the chemical structure of the resin. Since the heat retention indicator 1 is dependent on the chemical structure of the resin, it is an inherent property of the resin. Sun discloses the claimed water-absorbing resin, and therefore the heat retention indicator 1 is inherent to the resin.

In response to the Appellant's argument that Sun does not recognize the importance of the heat retention indicator, it is noted that since this property is inherent

to the chemical structure of the water-absorbent resin, and Sun discloses the identical water-absorbent resin of the claimed invention, Sun does not need to explicitly recognize the property, since it is inherent to the resin disclosed by Sun (see MPEP 2112, II).

In response to the Appellant's argument that the burden of establishing a *prima facie* case of obviousness falls on the Examiner, it is noted that in the specific instance of the heat retention indicator 1, the property is inherent to the chemical structure of the water-absorbing resin (see MPEP 2112.01, II). Therefore, the burden falls on the Applicant to show an unobvious difference (see MPEP 2112, V).

In response to the Appellant's argument that the superabsorbent material of Beihoffer differs significantly from that of Sun, it is noted that Beihoffer is not relied upon for the teaching of the type of material, but rather for the improvement in fluid handling offered by a saline flow conductivity of  $15 \times 10^{-7} \text{ cm}^3/\text{sec/g}$ .

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

C. Lynne Anderson

/Lynne Anderson/

Examiner, Art Unit 3761

Art Unit: 3764

Conferees:

Tatyana Zalukaeva

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